

CHICAGO

Electric[®]Power Tools

1/2" CORDLESS DRILL 19.2 VOLT

Model 94434

OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from that shown in this manual.



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Visit our Web site at: <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY,
READ AND UNDERSTAND ALL WARNINGS
AND INSTRUCTIONS BEFORE USE.**

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For technical questions or replacement parts, please call 1-800-444-3353.

SPECIFICATIONS

Battery Charger Input	120 VAC / 60 Hz
Battery Type	NiCd, 19.2 V, 1.7 Ah
Battery Charging Time	1 ¹ / ₂ Hours
Drill Specifications	0-350 RPM / 0-1,300 RPM; Variable Speed; Reversible; 24 Torque Settings; Pistol Grip; Squeeze Trigger
Weight	5 lb. with Battery

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List on page 11** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

Save This Manual

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES

 **WARNING!**
READ AND UNDERSTAND ALL INSTRUCTIONS
Failure to follow all instructions listed below may result
in electric shock, fire, and/or serious injury.
SAVE THESE INSTRUCTIONS

Work Area

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tool** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

Electrical Safety

1. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
2. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

Personal Safety

1. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
2. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
3. **Avoid accidental starting. Be sure the Trigger is released before plugging in.** Carrying power tools with your finger on the Trigger, or plugging in power tools with the Trigger depressed, invites accidents.
4. **Remove adjusting keys or wrenches before using the power tool.** A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.
5. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.
6. **Use safety equipment.** Always wear ANSI-approved safety glasses underneath a full face safety shield. Dust mask, nonskid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
7. **Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.

Tool Use and Care

1. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
2. **Do not use the power tool if the Trigger does not turn it on or off.** Any tool that cannot be controlled with the Trigger is dangerous and must be replaced.

3. **Disconnect the power tool from its Battery Pack (22) before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
4. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
5. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with a sharp cutting edge are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools “Do not use” until repaired.
6. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool’s operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
7. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

Service

1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in injury.
2. **When servicing a tool, use only identical replacement parts. Follow instructions in the “*Inspection, Maintenance, And Cleaning*” section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

1. **Maintain a safe working environment.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use the Cordless Drill in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
2. **Maintain labels and nameplates on this product.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
3. **When using the Cordless Drill, always maintain a firm grip on the tool with both hands.**
4. **Hold the tool by its insulated gripping surfaces when performing an operation where the Cordless Drill may contact hidden wiring.** Contact with a “live” wire will make exposed metal parts of the Cordless Drill “live” and shock the operator.

This is just an additional precaution; always check for hidden wiring before drilling.

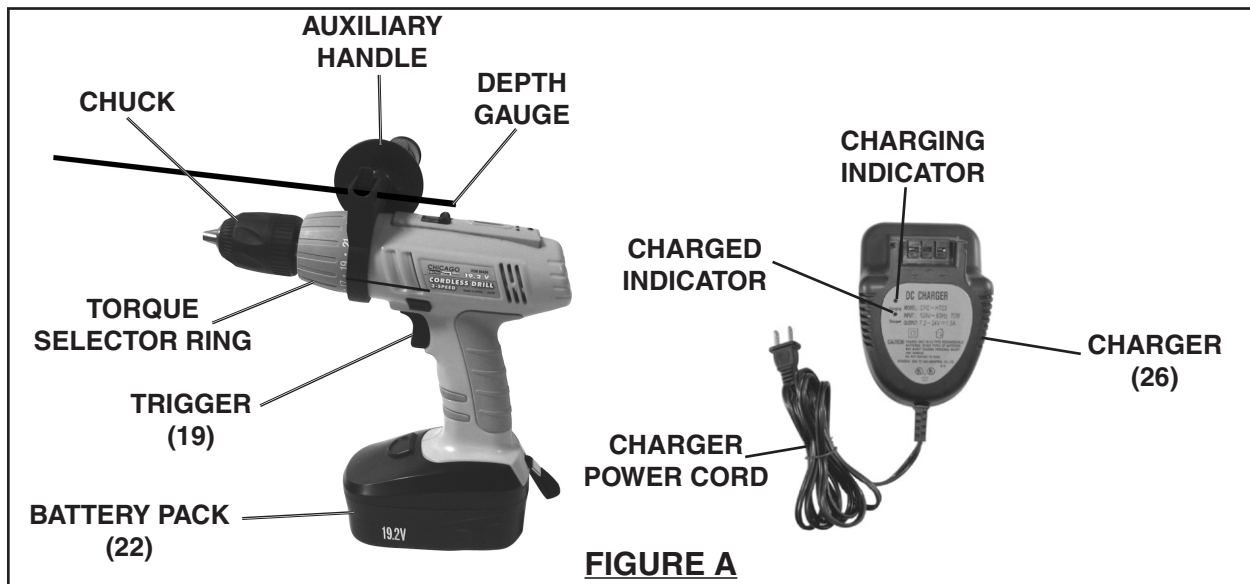
5. **Do not use the Cordless Drill or Charger (26) if it has been dropped, damaged, left outdoors, or immersed in liquid.**
6. **To avoid electrical shock, do not handle the Charger (26), its Power Cord Plug, or the Cordless Drill with wet hands.**
7. **Keep the Handle of the Cordless Drill dry, clean, and free from oil and grease.**
8. **Always turn off the Cordless Drill and unplug the Charger (26) from its electrical outlet before changing accessories or performing any inspection, maintenance, or cleaning procedures.**
9. **Avoid unintentional starting.** Make sure you are prepared to begin work before turning on the Cordless Drill.
10. **To avoid electrical shock, do not pull or carry the Charger (26) by its Power Cord.**
11. **Never leave the Charger (26) unattended when it is plugged into an electrical outlet.** Make sure to unplug it from its electrical outlet before leaving.
12. **Proper Battery Pack Care:** Battery Pack (22) leakage may occur under extreme usage or temperature conditions. If Battery Pack fluid comes in contact with skin, wash with soap and water and rinse with lemon juice and vinegar. If the fluid comes into contact with the eyes, flush with water for several minutes and contact a doctor immediately. Never burn the Battery Pack, as it can explode in a fire. Do not charge the Cordless Drill with a leaking Battery Pack. Contact local solid waste authorities for instructions on correct disposal or recycling of the Battery Pack.
13. **Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
14. **Always switch to a fresh Battery Pack (22) when tool performance begins to diminish.** Severe heat is most destructive to a Battery Pack. The more heat generated, the faster the Battery Pack loses power. A Battery Pack that gets too hot can be permanently damaged. Never over-discharge a Battery Pack by using the tool while tool performance is decreasing. Never attempt to discharge a tool's Battery Pack by continuing to pull the tool Trigger. When tool performance begins to diminish, stop the tool, recharge the Battery Pack, and use the fresh Battery Pack for optimal performance.
15. **WARNING!** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm. Some examples of these

chemicals are: lead from lead-based paints, crystalline silica from bricks and cement or other masonry products, arsenic and chromium from chemically treated lumber. Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. (*California Health & Safety Code 25249.5, et seq.*)

16. **WARNING!** People with pacemakers should consult their physician(s) before using this product. Electromagnetic fields in close proximity to a heart pacemaker could cause interference or failure of the pacemaker. In addition, people with pacemakers should adhere to the following: Avoid operating power tools alone. Don't use a power tool with the power switch (Trigger) locked on. If powered via a power cord be certain that the tool is properly grounded. A ground fault interrupt (GFCI) system is also a good precaution. This inexpensive device is a good safety measure because it prevents a sustained electrical shock. Properly maintain and inspect all tools before use to avoid electrical shock.
17. **WARNING!** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

PRODUCT FEATURES

NOTE: For additional information regarding the parts listed in the following pages, refer to the **Assembly Diagram on page 12.**



1. **⚠ WARNING!** Always make sure the Trigger of the Cordless Drill is in its “OFF” position, the Battery Pack (22) is removed from the Cordless Drill, and the Charger

- (26) is unplugged from its electrical outlet prior to making any adjustments to the tool. **(See Figure A.)**
2. **Chuck (11):** Accepts up to 3/8" *shank* diameter Drill Bits (not included). To install a Drill Bit with the Cordless Drill pointed away from your body, hold the Chuck Sleeve firmly in place and turn the Chuck *clockwise*. Insert the shank of a Drill Bit all the way into the Chuck. While holding the Chuck Sleeve in place, turn the Chuck *counterclockwise* to lock the Drill Bit in place. **(See Figure A.)**
 3. **Trigger (19):** The Trigger is operated *manually* simply by squeezing the Trigger to turn on the Cordless Drill and releasing pressure on the Trigger to turn off the Cordless Drill. The drill will go faster the more the trigger is squeezed. **(See Figure A.)**
 4. **Reversing Lever (23):** The Reversing Lever Switch allows you to change the rotational direction of the Cordless Drill. To change the rotational direction, make sure the Cordless Drill is at a complete stop. For a *clockwise* rotation, move the Switch to the *right*. For a *counterclockwise* rotation, move the Switch to the *left*. **(See Figure A.)**
 5. **Torque Selector Ring:** The Torque Selector Ring allows you to select up to 16 different driving torque settings, depending on the job required. To change the driving torque, make sure the Cordless Drill is at a complete stop. Then, simply turn the Torque Selector Ring to the desired setting. The drill setting is used to force the chuck not to slip and is used when drilling. **(See Figure A.)**

CHARGING INSTRUCTIONS

1. **NOTE:** The Battery Pack (22) requires charging. The first charge requires a **1¹/₂ hour** charge time prior to using the Cordless Drill. **(See Figure A.)**
2. When the Battery Pack (22) requires recharging, a **1¹/₂ hour** charge allows the tool to operate at full power. *Do not recharge the Battery Pack longer than 1¹/₂ hours, as damage to the Battery Pack and/or Charger (26) may occur.* Do not leave the charger unattended while charging. **(See Figure A.)**
3. Make sure the Trigger on the Cordless Drill is in its "**OFF**" position. Slide the Battery Pack (22) off of the Handle of the Cordless Drill. Next, slide the Charger Plug onto the Charging Socket of the Battery Pack. Then, plug the Charger (26) into the nearest 120 volt, grounded, electrical outlet. **(See Figure A.)**
4. Verify that the charging indicator light comes on. If it does not come on, check the power cord connection. Charge the Battery Pack (22) until the charging indicator light turns off and the charged indicator light comes on. When the Battery Pack (22) is fully charged, the Charger (26) will automatically shut off. **(See Figure A.)**

5. **NOTE:** While charging, the Battery Pack (22) and Charger (26) may become warm to the touch. This is normal, and does not indicate a problem. **(See Figure A.)**
6. Once the Battery Pack (22) is fully charged, disconnect the Charger (26) from the electrical outlet. Then, disconnect the Charger from the Battery Pack. **(See Figure A.)**

OPERATING INSTRUCTIONS

1. If possible, install the Side Handle (21) to allow better control of the drill. If desired, insert the Depth Gauge (25) through the hole in the Side Handle. The Depth Gauge (25) allows you to drill a hole to a specific depth.
2. When installing Drill Bits, make sure the Battery Pack (22) is removed from the Cordless Drill to avoid accidental starting. Then, insert and lock in place a Drill Bit in the Chuck (11) of the Cordless Drill.
3. Whenever possible, secure the workpiece in place, using a vise or clamps (not included).
4. When drilling in light gauge metal or wood, use a wooden block to back up the material to prevent damage to the workpiece.
5. Mark the center of the hole to be drilled with a center punch to give a Drill Bit a start and to prevent it from “walking”.
6. Lubricate the Drill Bit with cutting oil when drilling iron or steel. Use a coolant when drilling nonferrous metals such as copper, brass, or aluminum.



7. Insert the fully charged Battery Pack (22) into the Handle of the Cordless Drill. **(See Figure B.)**

8. Make sure to hold the Cordless Drill firmly with both hands, as torque from the Motor will cause the tool to twist.



9. Observe the top of the Cordless Drill. (See Figure C.)
10. The Cordless Drill is equipped with a Level that helps the operator drill holes parallel to the floor. (See Figure C.)
11. When depressed, the Light Activator allows the Red, Yellow, and Green Lights to illuminate. (See Figure C.)
12. The Red, Yellow, and Green Lights indicate the Battery Pack's (22) charge level. All three Lights illuminated means the Battery Pack is at *full* charge. Red and Yellow Lights illuminated means the Battery Pack is *partially* charged. The Red alone illuminated means the Battery Pack is almost fully *discharged*, and requires recharging. (See Figure C.)
13. The Speed Selector can be used, while the drill is stopped to change the gear of the drill. Gear 1 is for higher torque, while gear 2 is for faster speed.
14. Turn the Cordless Drill on, using the Trigger.
15. **Do not drill into areas where you cannot identify any possible hazards such as electric wires and cables behind the drilling surface.** Drill only as deep as necessary.
16. To reduce jamming as the Drill Bit breaks through the workpiece, decrease the drilling pressure when the point of the Drill Bit breaks through the workpiece.
17. When you have drilled the hole, remove the Drill Bit from the hole while the Cordless Drill is still running. This prevents the Drill Bit from getting caught in the hole and causing damage.
18. Release the Trigger to stop the Cordless Drill. Then, remove the Battery Pack (22) and Drill Bit from the Cordless Drill.

INSPECTION, MAINTENANCE, AND CLEANING

1. **⚠️ WARNING!** Always turn the Trigger to its “OFF” position, unplug the Charger (26) from its electrical outlet, and disconnect the battery before performing any inspection, maintenance, or cleaning.
2. **BEFORE EACH USE**, inspect the general condition of the Cordless Drill. Check for misalignment or binding of moving parts, cracked or broken parts, leaking Battery Pack, damaged Charger wiring, chipped or broken Drill Bits, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use.
Do not use damaged equipment.
3. **Battery Pack (22) precautions:** Never burn Batteries, as they can explode in a fire. Do not charge leaking Batteries. Only a qualified service technician should perform maintenance on the Battery Pack. Contact Harbor Freight Tool’s customer service for information on free, proper disposal of the Battery Pack.
4. **DAILY:** With a soft brush or cloth, remove all dirt and debris from the Cordless Drill. Do not immerse the Cordless Drill in any liquids.
5. **When storing:** Always remove the Battery Pack (22) from the Cordless Drill. Keep the Drill and its accessories in a clean, dry location out of children’s reach.

WARRANTY



PARTS LIST

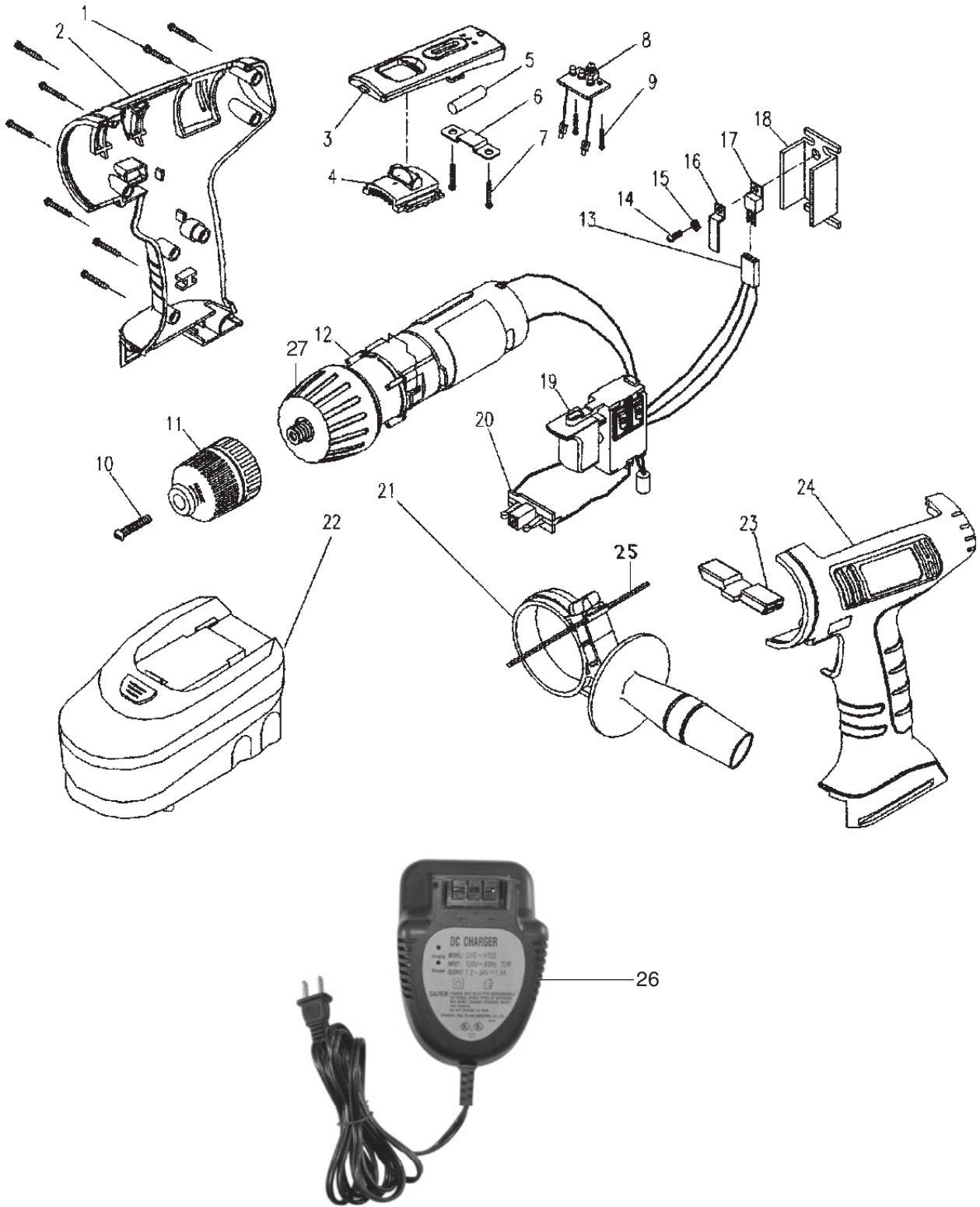
Part	Description	Qty.
1	Screw	8
2	Right Body	1
3	Plate	1
4	Speed Control	1
5	Level Tube	1
6	Level Tube Panel	1
7	Screw	2
8	Display Panel	1
9	Screw	2
10	Screw	1
11	Chuck	1
12	Gear Box	1
13	Connector	1
14	Screw	1

Part	Description	Qty.
15	Washer	1
16	Panel	1
17	Transistor	1
18	Radiator	1
19	Trigger	1
20	Battery Clamp	1
21	Side Handle	1
22	Battery Pack	1
23	Forward/Reverse Switch	1
24	Left Body	1
25	Depth Gauge	1
26	Charger	1
27	Torque Selector Ring	1

PLEASE READ THE FOLLOWING CAREFULLY
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THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

ASSEMBLY DIAGRAM



NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.